# Anglo-Chinese School (Junior)

**SEMESTRAL ASSESSMENT (2020)**

**PRIMARY 5**

**SCIENCE**

**BOOKLET A**

**Tuesday** **3 November 2020** **1 hr 45 min**

Name: _____( ) Class: 5.( )

**INSTRUCTIONS TO PUPILS**

1 Do not turn over the pages until you are told to do so.

2 Follow all instructions carefully.

3 There are 28 questions in this booklet.

4 Answer ALL questions.

5 Shade your answers in the Optical Answer Sheet (OAS) provided.

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**This question paper consists of 18 printed pages (inclusive of cover page).**

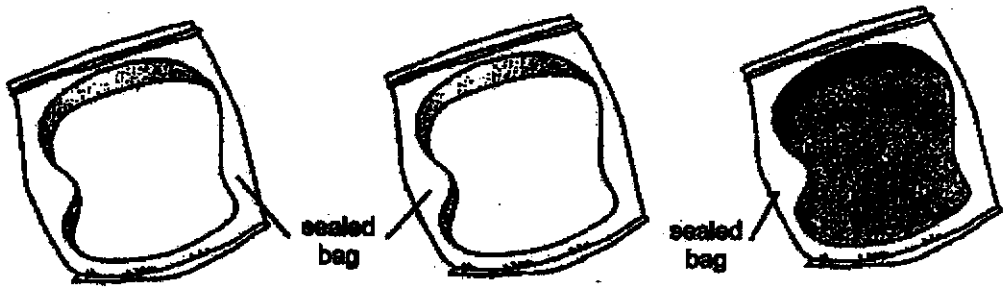
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For each question from 1 to 28, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade your answer on the Optical Answer Sheet.

[56 marks]

1. Sally wanted to find out how moisture affects the growth of bread mould. She prepared identical slices of bread, A, B and C, and placed them in identical sized bags under different conditions as shown.




Bread A

Bread B moistened with a few drops of water

Bread C toasted in oven

Sally left the slices of bread in a dark kitchen cupboard for a week. Which of the following is correct?

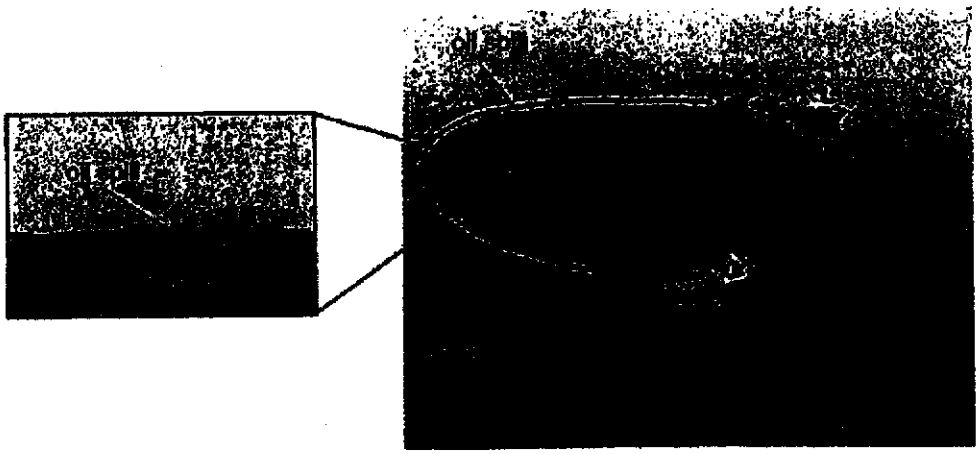
| | Least bread mould | Some bread mould | Most bread mould |
|---|---|---|---|
| (1) | A | B | C |
| (2) | B | C | A |
| (3) | C | A | B |
| (4) | C | B | A |

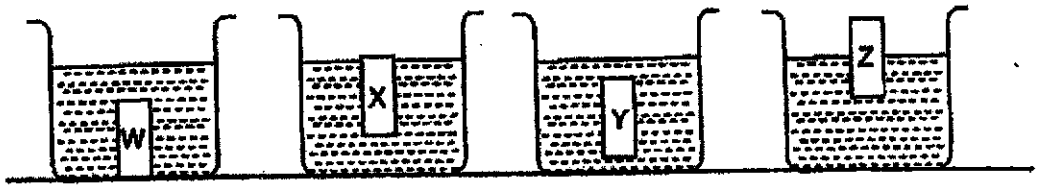


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2. A barrier is used to contain an oil spill at sea as shown.




Which material, W, X, Y or Z is most suitable for making the barrier?

(1) W
(2) X
(3) Y
(4) Z

3. The diagram shows a seedling growing in a dark room.



Why is the seedling able to grow?

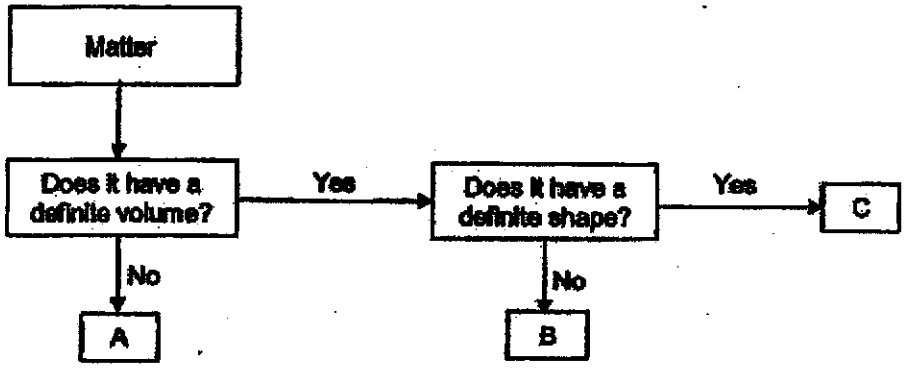
(1) Its seed leaves can make food for the seedling.
(2) It does not need food for its growth at this stage.
(3) It obtains the mineral salts it needs from the soil.
(4) Its seed leaves provide the food required for its growth.



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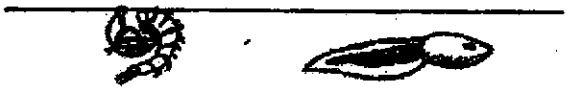
4. Study the flowchart.




What can A, B and C most likely be?

| | A | B | C |
|---|---|---|---|
| (1) | water vapour | ice | paper |
| (2) | cloud | milk | nitrogen |
| (3) | steam | mist | iron nail |
| (4) | paper | nitrogen | milk |

5. The pictures show a stage in the life cycle of a mosquito and a frog.



young of a mosquito young of a frog

In what ways are they similar?

A They moult.
B They developed from eggs.
C They resemble their adults.
D They feed on the same food.

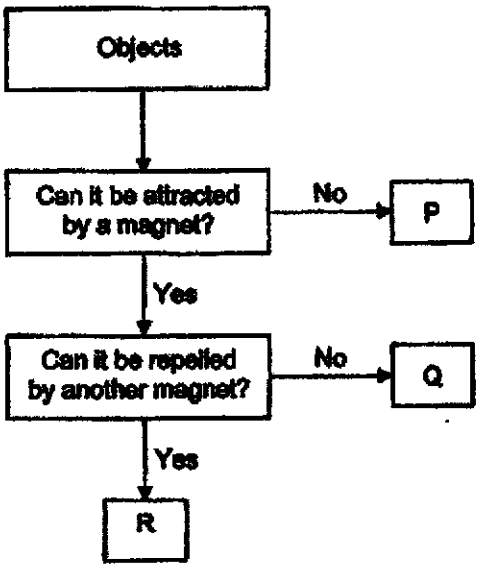
(1) B only
(2) A and C only
(3) B and D only
(4) A, C and D only



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6. Study the flowchart.




Which of the following about objects P, Q and/or R are correct?

A P is made of steel.
B Q can be magnetised.
C R can attract iron nails.
D P and Q are non-magnetic.

(1) A and D only
(2) B and C only
(3) A, B and C only
(4) A, C and D only



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7. Tom accidentally dropped a bar magnet which broke into three pieces as shown. Each broken piece is a magnet.

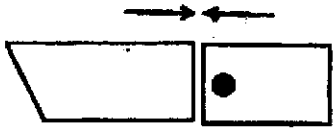


He could arrange the broken pieces of the magnet as shown.



The arrows predict the interactions between two broken pieces when they are brought near each other. Which of the following predictions is correct?

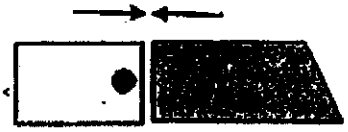
(1)



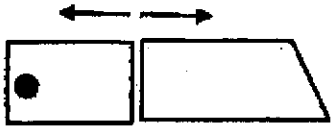
(2)



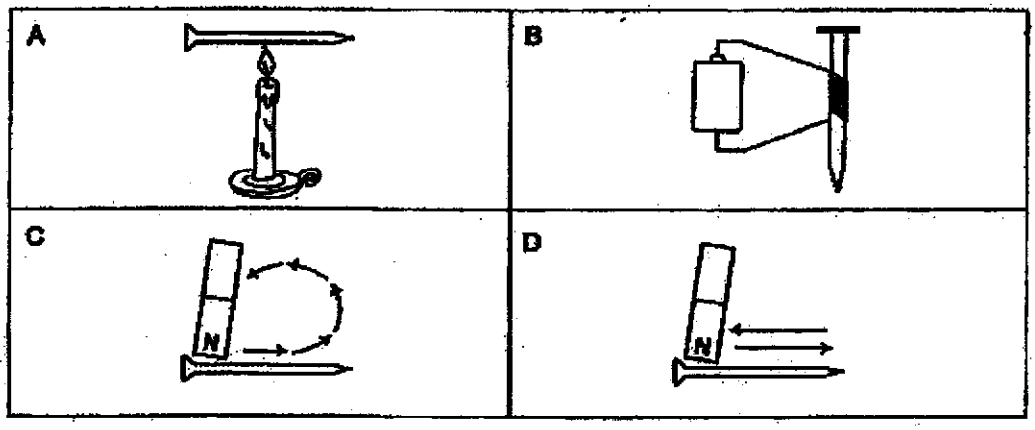
(3)



(4)



8. Which of the following are two correct methods of making an iron nail into a magnet?




(1) A and C
(2) A and D
(3) B and C
(4) B and D



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9. The diagrams show the reproductive systems of a plant and a human.

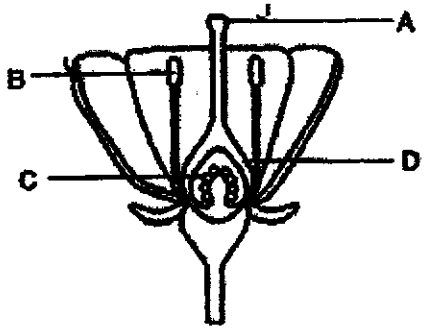



Diagram 1

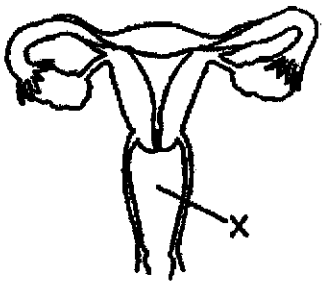
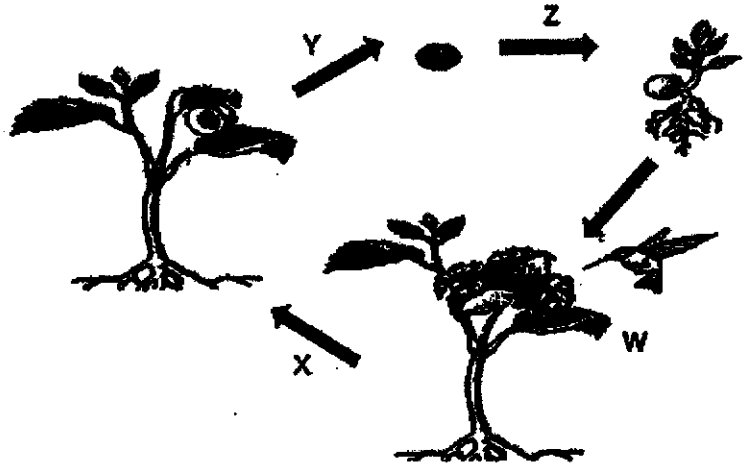



Diagram 2

Which part, A, B, C or D, in diagram 1 has a similar function as part X in diagram 2?

(1) A
(2) B
(3) C
(4) D

10. The diagram shows processes W, X, Y and Z which occur during the life cycle of a plant.




Which of the following correctly identifies processes W, X, Y and Z?

| | W | X | Y | Z |
|---|---|---|---|---|
| (1) | Seed dispersal | Germination | Pollination | Fertilisation |
| (2) | Pollination | Fertilisation | Seed dispersal | Germination |
| (3) | Pollination | Germination | Fertilisation | Seed dispersal |
| (4) | Fertilisation | Pollination | Seed dispersal | Germination |



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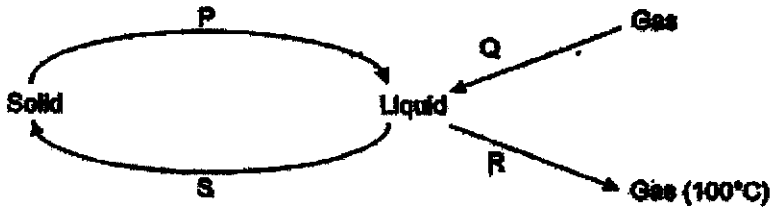
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11. Which of the following two characteristics can be passed on from parents to their young?

A Thumbprint
B Length of hair
C Colour of eyes
D Type of earlobe

(1) A and B
(2) B and D
(3) C and D
(4) A and C

12. Study the diagram. P, Q, R and S represent different processes involving changes in states of water.




Which of the following correctly represents processes P, Q, R and S?

| | P | Q | R | S |
|---|---|---|---|---|
| (1) | freezing | melting | evaporation | condensation |
| (2) | melting | condensation | boiling | freezing |
| (3) | freezing | condensation | melting | boiling |
| (4) | melting | evaporation | boiling | freezing |



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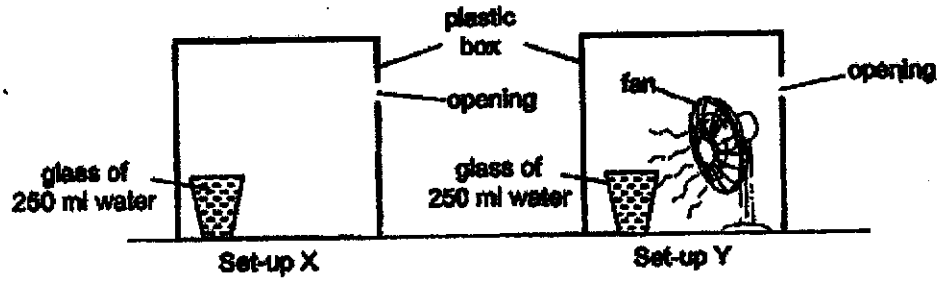
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13. Which of the following actions would help to conserve water?

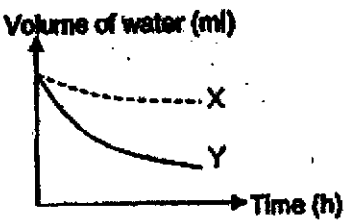
A Using a pail of water to wash the car.
B Turning off the shower when soaping.
C Keeping the tap on while brushing your teeth.
D Reusing water used for washing vegetables to water plants.

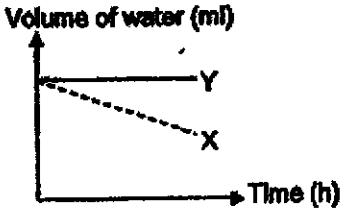
(1) A and B only
(2) C and D only
(3) A, B and D only
(4) B, C and D only

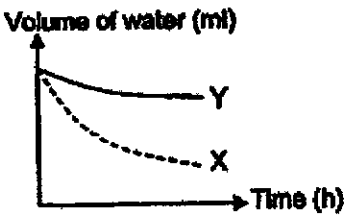
14. Anna conducted an experiment to investigate if the presence of wind affects the rate of evaporation of water. He set up the following experiment and left it undisturbed in a room.

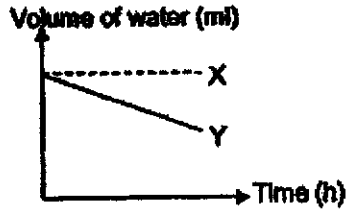



Which graph correctly represents the amount of water left in each set-up after a few hours?

(1)



(2)



(3)


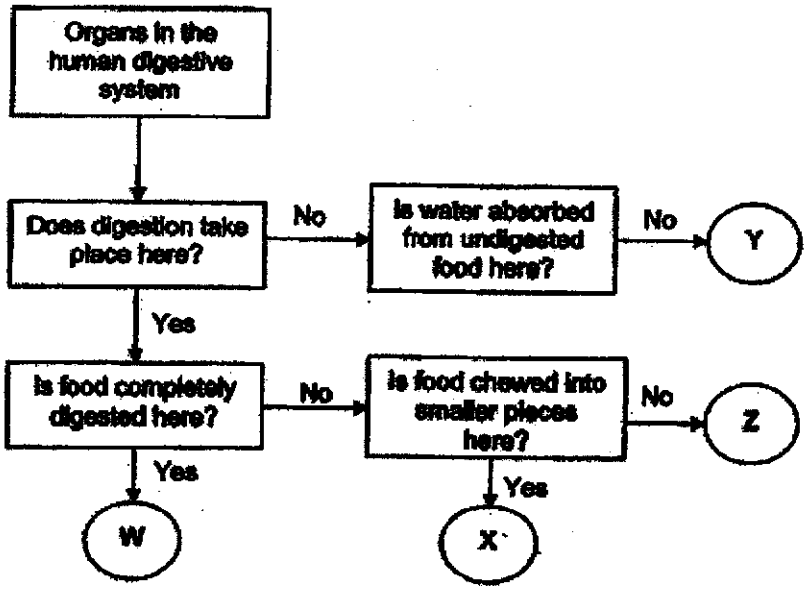

(4)





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15. Study the flow chart.




Which of the following is the correct identification of the organs in the human digestive system?

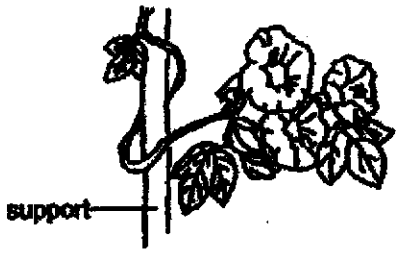
| | W | X | Y | Z |
|---|---|---|---|---|
| (1) | stomach | mouth | large intestine | stomach |
| (2) | small intestine | mouth | gullet | stomach |
| (3) | large intestine | small intestine | large intestine | mouth |
| (4) | small intestine | stomach | gullet | small intestine |



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16. Study the plant.

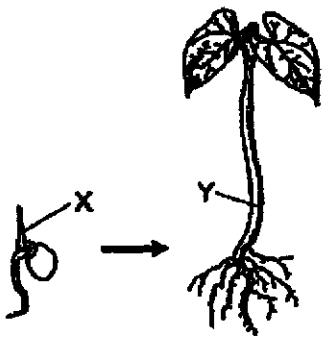



Which of the following two statements are true about the plant?

A It has a weak stem.
B It does not have roots.
C It reproduces by seeds.
D The cells in the stem do not have cell walls.

(1) A and C
(2) A and D
(3) B and D
(4) B and C

17. The diagram shows a plant at different stages of growth.




In which direction is food transported at X and Y?

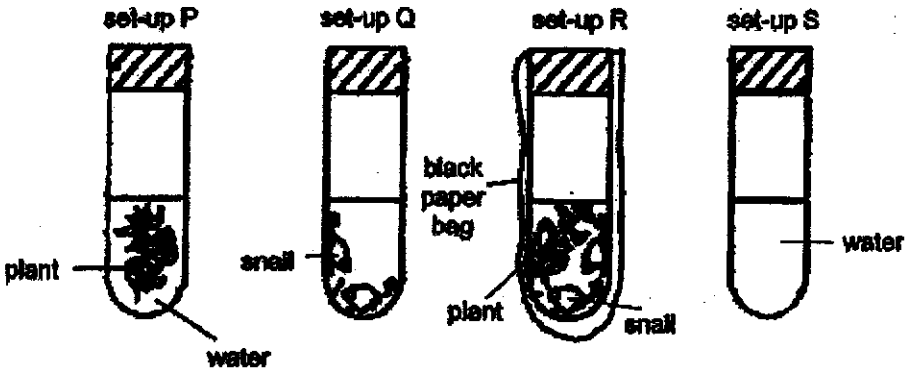
| | X | Y |
|---|---|---|
| (1) | upwards | upwards |
| (2) | upwards | downwards |
| (3) | downwards | upwards |
| (4) | downwards | downwards |



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18. Alex prepared the following set-ups using four identical test tubes and left them in the garden for a few hours as shown.




Liquid Y, when mixed with water, forms a mixture which changes colour according to the amount of carbon dioxide present, as shown in the table.

| Amount of carbon dioxide | Colour of mixture |
|---|---|
| Low | blue |
| Normal | green |
| High | red |

Alex added a few drops of liquid Y into each test tube. The mixture in set-up S turned green. Which of the following correctly shows the colour of the mixture in the other three set-ups?

| | Set-up P | Set-up Q | Set-up R |
|---|---|---|---|
| (1) | red | blue | green |
| (2) | blue | green | green |
| (3) | green | blue | blue |
| (4) | blue | red | red |



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19. The arrows in the diagram show the direction of blood flow in some parts of the human body.




Which of the following statements are true about the difference in the amount of oxygen in W, X, Y and Z?

A W contains more oxygen than Z.
B W contains less oxygen than Y.
C Y contains less oxygen than X.
D Z contains more oxygen than X.

(1) A and C only
(2) B and D only
(3) A, B and D only
(4) B, C and D only

20. Aidan studied three different cells, human cheek cell, root cell and leaf cell, under a microscope. He counted the number of the different cell parts, A, B and C, in each cell and recorded the numbers in the table.

| | Number of cell parts | | |
|---|---|---|---|
| | A | B | C |
| Human cheek cell | 1 | 0 | 0 |
| Root cell | 1 | 0 | 1 |
| Leaf cell | 1 | 12 | 1 |

Which of the following cell parts do A, B and C most likely represent?

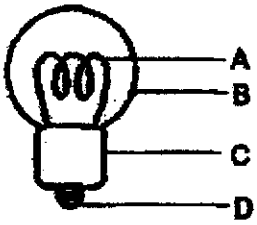
| | A | B | C |
|---|---|---|---|
| (1) | Nucleus | Chloroplast | Cell wall |
| (2) | Nucleus | Cell wall | Chloroplast |
| (3) | Cell wall | Cell membrane | Chloroplast |
| (4) | Cell membrane | Chloroplast | Nucleus |



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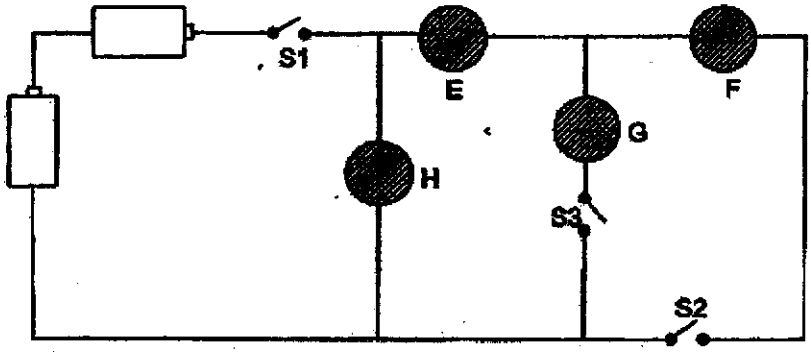
21. The diagram shows a bulb.




Which part(s) of the bulb can conduct electricity?

(1) B only
(2) A and D only
(3) C and D only
(4) A, C and D only

22. Ian set up a circuit using wires, two batteries, three switches, S1, S2 and S3, and four objects, E, F, G and H, as shown. One of the objects was a light bulb. The batteries, switches and bulb were in working condition.




Ian made the following observations when he closed certain switches.

| Switches that are closed | Observation |
|---|---|
| S1 and S3 | Bulb lighted up |
| S1 and S2 | Bulb did not light up |

Which of the following correctly represents objects, E, F, G and H?

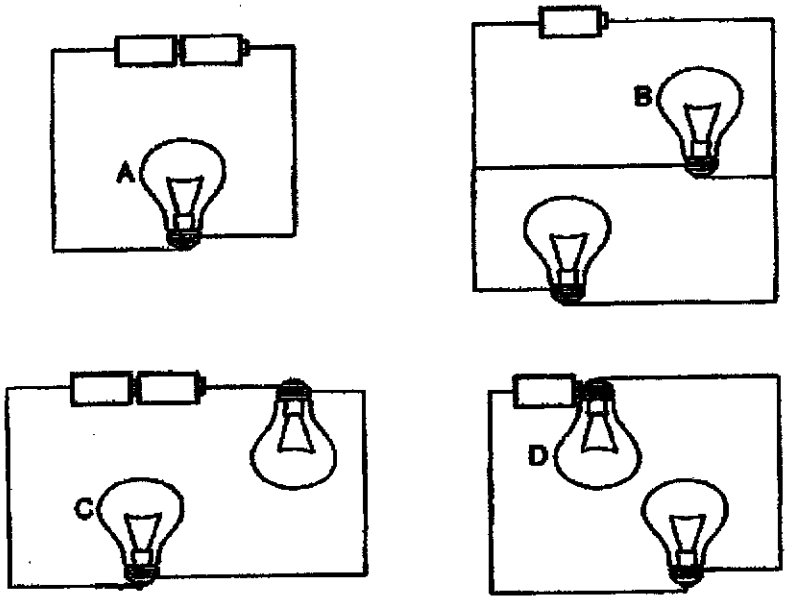
| | E | F | G | H |
|---|---|---|---|---|
| (1) | iron ball | glass marble | bulb | rubber ball |
| (2) | rubber ball | bulb | glass marble | iron ball |
| (3) | glass marble | iron ball | rubber ball | bulb |
| (4) | rubber ball | iron ball | bulb | glass marble |



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23. The diagram shows four circuits with identical bulbs and batteries in working condition.




Which two bulbs in the circuits will have similar brightness?

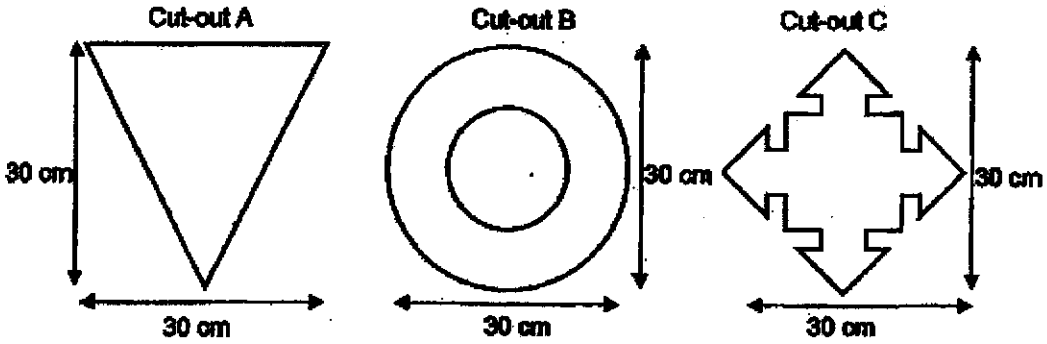
(1) A and C
(2) A and D
(3) B and C
(4) B and D



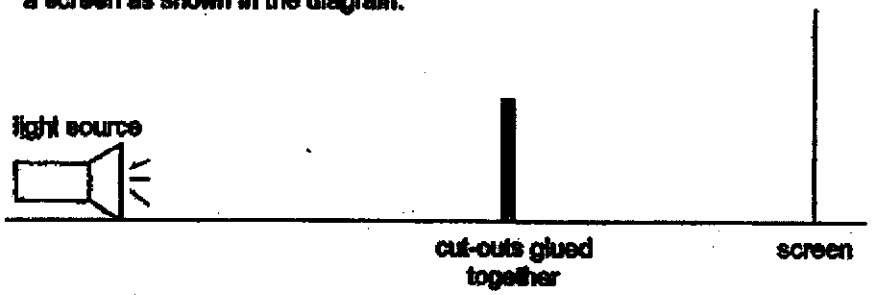
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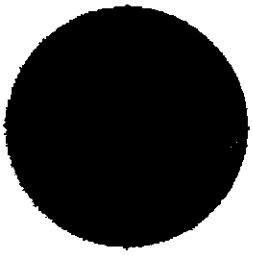
24. The diagram shows three cut-outs, A, B and C, each made from a different material.




The three cut-outs were then glued together and placed between a light source and a screen as shown in the diagram.




The diagram shows the shadow formed on the screen.



Which of the following materials are the cut-outs made of?

| | Cut-out A | Cut-out B | Cut-out C |
|---|---|---|---|
| (1) | plastic sheet | tracing paper | cardboard |
| (2) | cardboard | plastic sheet | aluminium foil |
| (3) | clear glass | cardboard | tracing paper |
| (4) | tracing paper | frosted glass | plastic sheet |



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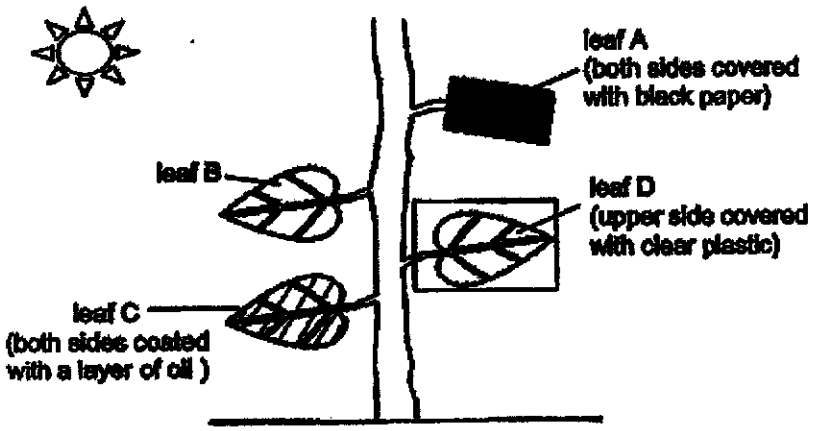
25. Sam conducted an experiment using four different metal containers, A, B, C and D. He placed some water in each container and heated them with a similar heat source. He recorded the time taken for the water in each container to boil.

| Metal Container | Volume of water at the start (ml) | Starting temperature of water (°C) | Time taken for water to boil (min) |
|---|---|---|---|
| A | 80 | 30 | 10 |
| B | 80 | 40 | 10 |
| C | 100 | 30 | 10 |
| D | 100 | 30 | 12 |

Which metal container is the best conductor of heat?

(1) A
(2) B
(3) C
(4) D

26. Marcus conducted an experiment as shown.




Which leaf(s) is/are not able to make food?

(1) B only
(2) A and C only
(3) B and D only
(4) A, C and D only



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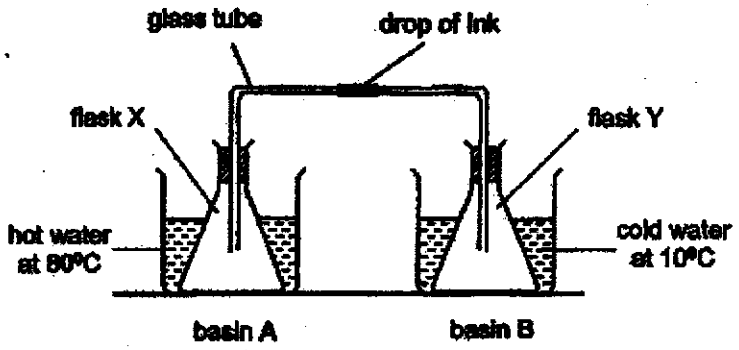
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27. Rafi placed four objects, A, B, C and D, under the Sun. Which of the following object(s) can reflect sunlight into Rafi's eyes?

A mirror
B shiny metal
C black paper
D clear glass

(1) C only
(2) D only
(3) A and B only
(4) A, B, C and D

28. Ezra set up an experiment as shown. The drop of ink was in the middle of the glass tube at the start of the experiment. He then poured hot water at 80°C into basin A and cold water at 10°C into basin B at the same time.




Which of the following correctly shows the direction that the drop of ink will move and the reason for its movement after three minutes?

| | Direction the drop of ink will move | Reason |
|---|---|---|
| A | ← | Air in Y gained heat and expanded. |
| B | ← | Air in X lost heat and contracted. |
| C | → | Air in X gained heat and expanded. |
| D | → | Air in Y lost heat and contracted. |

(1) C only
(2) A and B
(3) A and D
(4) C and D

**End of Booklet A**



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# Anglo-Chinese School (Junior)

**SEMESTRAL ASSESSMENT (2020)**

**PRIMARY 5**

**SCIENCE**

**BOOKLET B**

**Tuesday** **3 November 2020** **1 hr 45 min**

Name: _____( ) Class: 5.( )

**INSTRUCTIONS TO PUPILS**

1 Do not turn over the pages until you are told to do so.

2 Follow all instructions carefully.

3 There are 13 questions in this booklet.

4 Answer ALL questions.

5 The marks are given in the brackets [ ] at the end of each question or part question.

| Booklet | Possible Marks | Marks Obtained |
|---|---|---|
| A | 56 | |
| B | 44 | |
| Total | 100 | |

**This question paper consists of 17 printed pages (inclusive of cover page).**

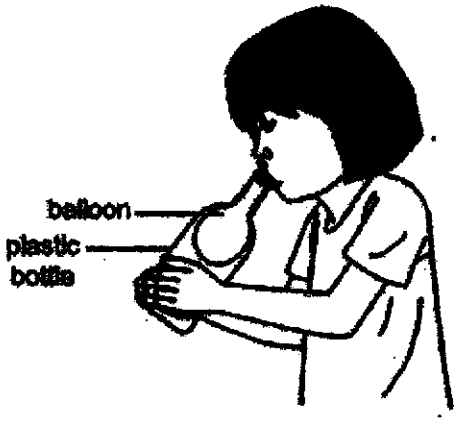
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For questions 29 to 41, write your answers in this booklet.
The number of marks available is shown in brackets [ ] at the end of each question or part question.

[44 marks]

29 Susie fitted a deflated balloon over the mouth of an empty plastic bottle and blew into the balloon as shown. The balloon inflated a little but could not inflate fully in the bottle.




(a) Explain why Susie could not inflate the balloon fully in the bottle. [1]

(b) Without replacing the plastic bottle or balloon, suggest what Susie can do to the bottle so that the balloon can inflate fully in the bottle. [1]

(c) Explain how your suggestion in (b) will work when she blows more air into the balloon. [1]

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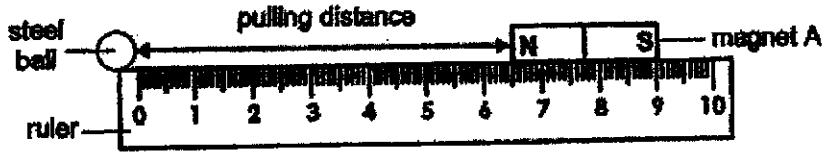
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30 Jerry tested the magnetic strength of four magnets, A, B, C and D by pushing each magnet towards the steel ball until the steel ball was attracted to the magnet. The distance at which the magnet attracted the steel ball is known as the pulling distance.




The results of his experiment are shown in the table.

| Magnet | Pulling Distance (cm) |
|---|---|
| A | 7 |
| B | 3 |
| C | 8 |
| D | 5 |

(a) Order magnets A, B, C and D, from the strongest to the weakest. [1]

(b) State the relationship between the pulling distance of a magnet and its magnetic strength. [1]

(c) Jerry replaced the steel ball with an aluminium ball. What change will he observe when he pushes each magnet towards it? Explain why. [1]

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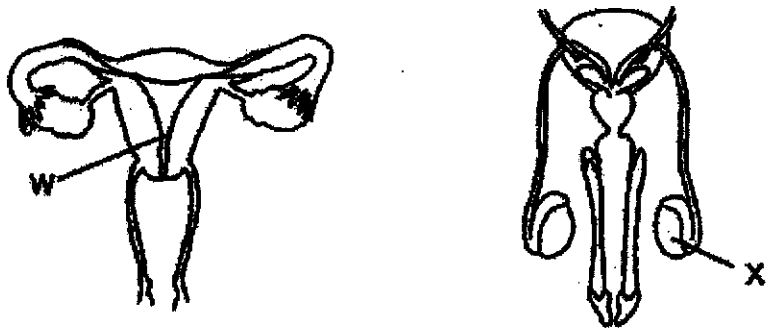
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31 The diagrams show the human reproductive systems.




(a) Name parts W and X. State the function of each part. [2]

| | Name | Function |
|---|---|---|
| Part W | | |
| Part X | | |

(b) State one similarity between fertilisation in flowering plants and in humans. [1]

_____

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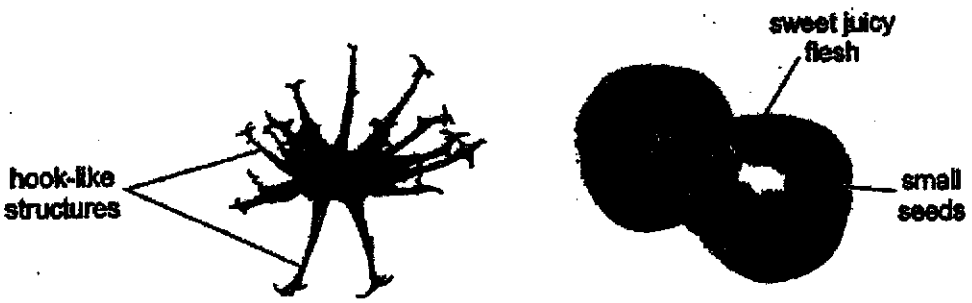
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32 The diagrams show two fruits, X and Y.




Fruit X Fruit Y

(a) Describe how the fruits are dispersed based on their characteristic(s). [2]

Fruit X :

_____

_____

Fruit Y :

_____

_____

(b) Explain why plants disperse their seeds far away from the parent plant. [1]

_____

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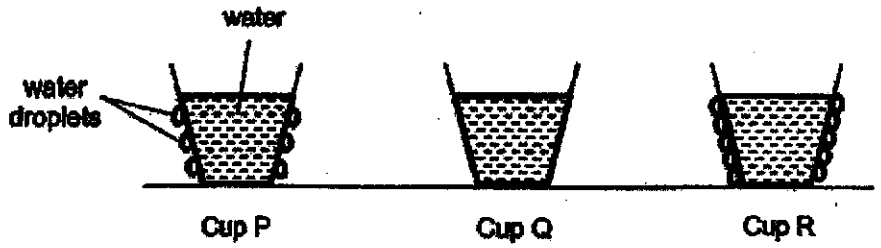
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33 200ml of water each, at different temperatures, were poured into three identical metal cups, P, Q and R, and left on a table. After some time, it was observed that water droplets formed only on the outer surface of cups P and R, as shown.

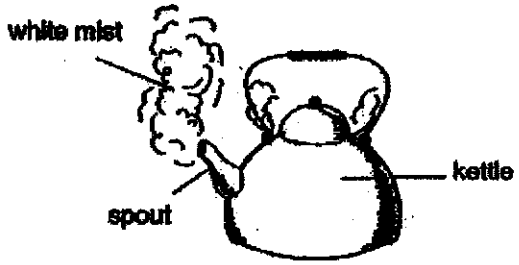



(a) Order the cups, P, Q and R, starting from the one with water at the lowest temperature. [1]

Lowest temperature ⟶ Highest temperature

(b) Explain why no water droplets were formed on the outer surface of cup Q. [2]

Water in cup Q was then poured into a kettle and heated over a gas burner until a white mist was seen forming near the spout of the kettle.




(c) Explain how the white mist was formed. [2]

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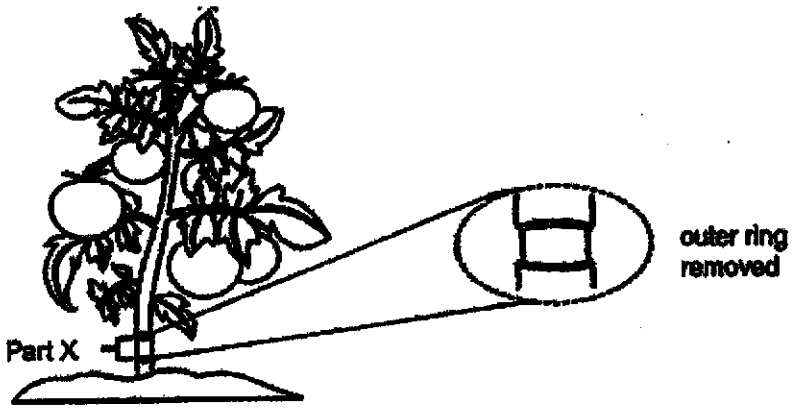
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34 Matthew conducted an experiment using two similar tomato plants, A and B, with similar sized fruits. He removed the outer ring from the stem of plant A at part X such that only the food-carrying tubes were removed along with this outer ring as shown.




Plant A

After a month, Matthew recorded the volume of the tomato fruits of plants A and B in the table.

| Fruit of plant | Initial volume of fruit | Volume of fruit after a month |
|---|---|---|
| A | 5 $cm^3$ | 10 $cm^3$ |
| B | 5 $cm^3$ | 7 $cm^3$ |

(a) Explain why plant A produced bigger fruits than plant B after a month. [2]

_____

_____

_____

(b) Give a reason why plant A started to wilt after a few months. [1]

_____

_____

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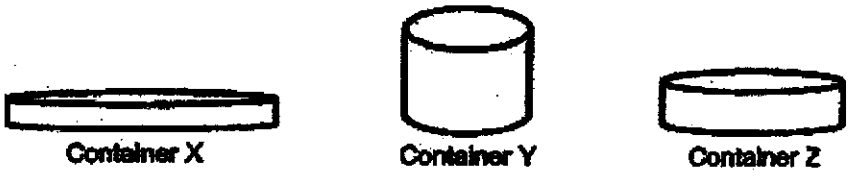
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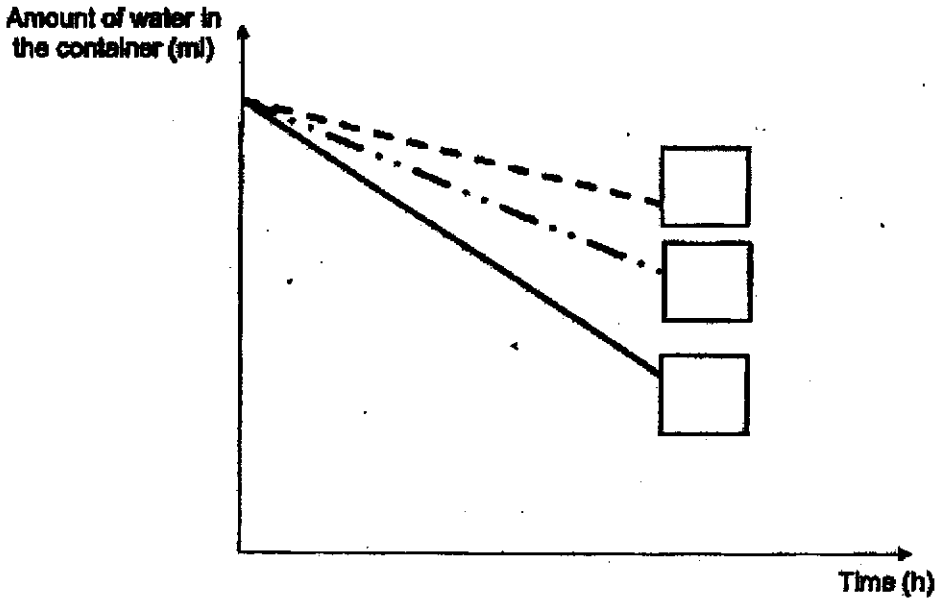
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35 Jack carried out an experiment by pouring 500ml of water each into three glass containers, X, Y and Z, which were placed on his dining table.




(a) He measured the amount of water left in each container every hour and plotted his results in a graph. Fill in the boxes in the graph with the letters X, Y or Z to match the result. [1]




(b) State the aim of Jack's experiment [1]

_____

_____

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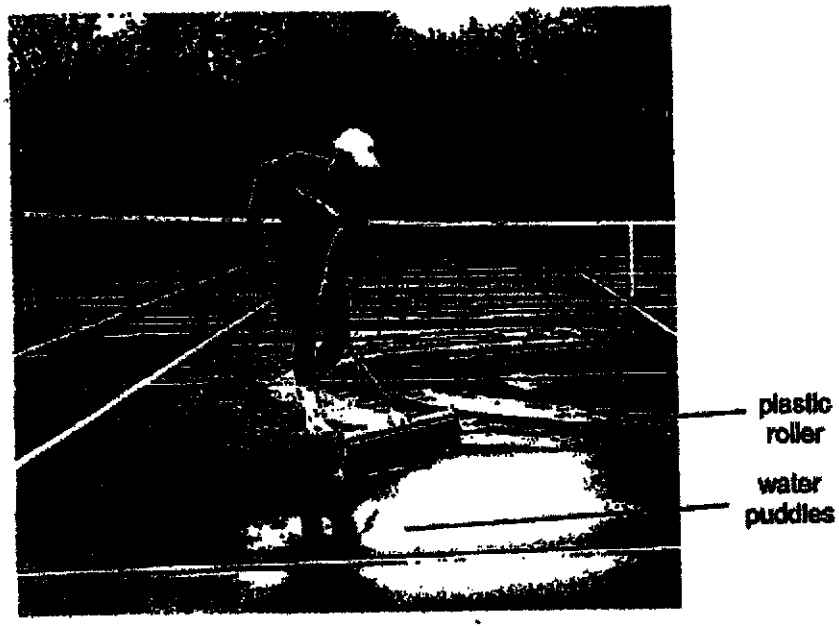
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After a heavy rain, Jack used a plastic roller to spread out the puddles of water on the tennis court.




(c) Explain why his action caused the tennis court to dry faster. [1]

_____

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38(a) The table shows the difference in the amount of four gases, A, B, C and D, in inhaled and exhaled air.

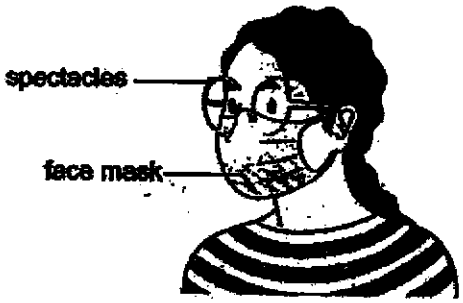
| Gas | Inhaled air | Exhaled air |
|---|---|---|
| A | Less | More |
| B | Less | More |
| C | Remain the same | Remain the same |
| D | More | Less |

Which gases, A, B, C or D, are nitrogen and oxygen? [1]

(i) Nitrogen: _____

(ii) Oxygen: _____

(b) Miss Sara was wearing her face mask while she was explaining a Science question as shown.




(i) She noticed tiny water droplets forming on her spectacles. State where the tiny water droplets came from. [1]

_____

(ii) The face mask is able to filter some tiny particles in the air. Which part of the human respiratory system has a similar function as the face mask? [1]

_____

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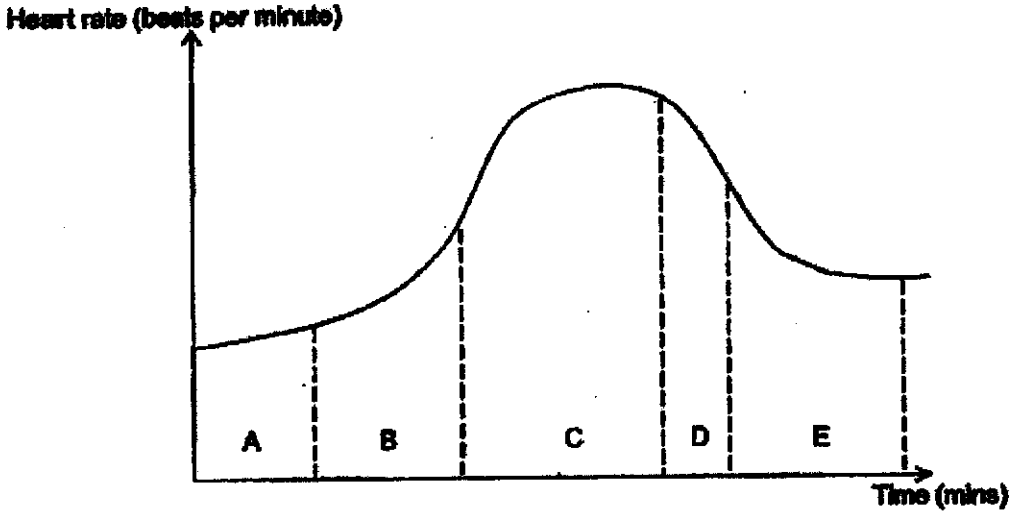


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37 Gabriel walked from his house to the stadium. At the stadium, he did some warm-up exercises before he started running a distance of 1.6 km. After his run, he did some stretching exercises to cool down before he walked home.

The graph shows how Gabriel's heart rate changed from the time he left his house until he cooled down.




(a) Match parts A, B, C, D and E in the graph to Gabriel's activities from the time he left his house till he walked back home. [1]

| | Activity | Part of graph |
|---|---|---|
| 1. | 1.6 km run | |
| 2. | Warm-up exercise | |
| 3. | Walking back home | |
| 4. | Cool down stretches | |
| 5. | Walking to the stadium | |

(b) What happened to his heart rate while he was running? Explain why. [2]

_____

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38 Maximus set up a circuit for a door alarm using a buzzer, two batteries, wires and some metal strips connected to a wooden door. The diagrams show the circuit when the door is opened and closed.

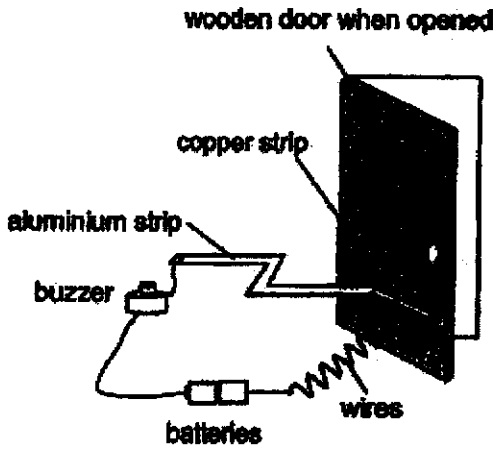



Diagram 1

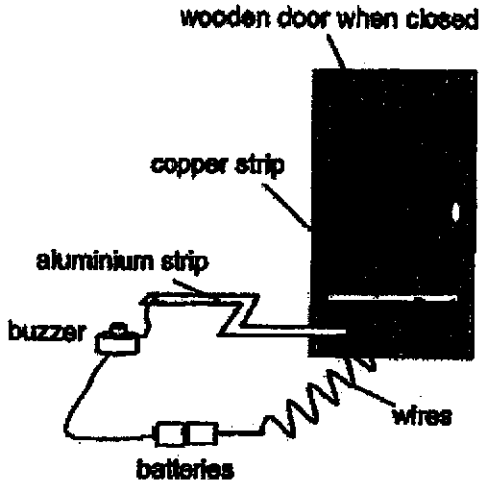



Diagram 2

(a) Explain why the buzzer sounded when the door was opened in diagram 1 [1]

_____

_____

(b) Without changing the buzzer, suggest what Maximus can do to the circuit to make the buzzer produce a louder sound. [1]

_____

_____

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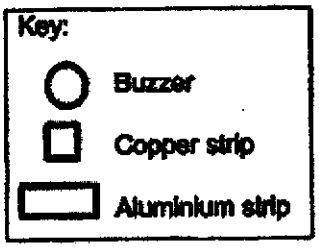


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(c) Maximus wanted to connect a bulb to the circuit so that the bulb would light up even when the buzzer is not working.

Based on diagram 1, draw a circuit diagram with the additional bulb. Use the key provided in your diagram. [2]




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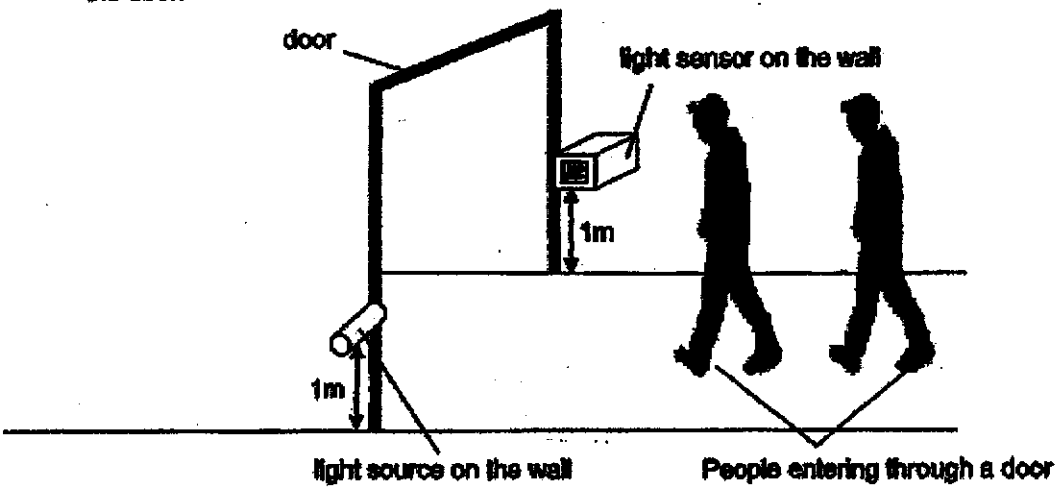
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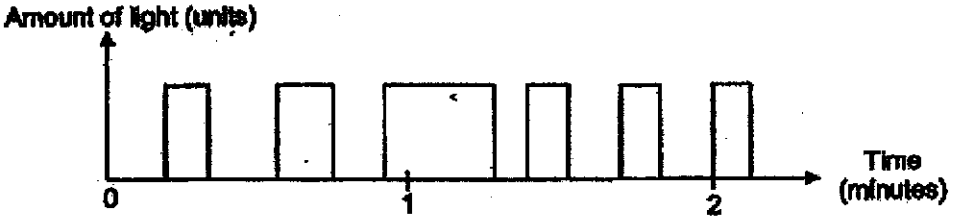
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39 The set-up shown uses a light sensor to count the number of people walking through the door.




When a person is between the light source and the sensor, his body blocks the light from reaching the sensor. The amount of light detected by the light sensor is recorded in the graph.




(a) Based on the graph, how many people entered the hall at the end of the second minute? [1]

_____

(b) State the property of light that allows the set-up to work. [1]

_____

(c) State two disadvantages of the set-up and give reasons why. [2]

| | Disadvantage | Reason |
|---|---|---|
| 1. | | |
| 2. | | |

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40 Lukas conducted an experiment to find out how the amount of light affects the rate of photosynthesis in a plant.

He recorded the results in the table.

| Amount of light (units) | 20 | 40 | 60 | 80 | 100 | 120 |
|---|---|---|---|---|---|---|
| Number of bubbles produced in one minute | 30 | 56 | 70 | 92 | 92 | 92 |

(a) State two substances that plants produce during photosynthesis. [1]

(b) Lukas kept the distance between the light source and the plant the same throughout the experiment. Explain why this ensures a fair test. [1]

(c) Predict the number of bubbles produced by the plant when the amount of light is increased to 150 units. Explain your answer. [1]

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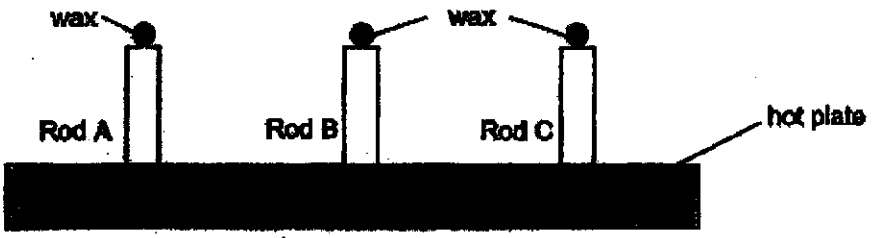
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41 Ethan conducted an experiment to find out which material that the three rods, A, B and C are made of, is the best conductor of heat. He prepared the set-up as shown.

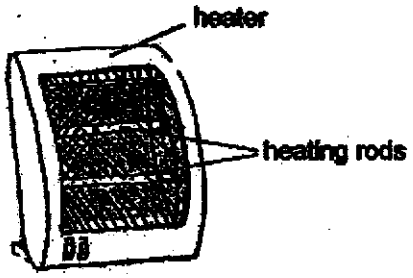



He recorded the time taken for the wax to melt completely on each rod in the table.

| Rod | A | B | C |
|---|---|---|---|
| Time taken (min) | 16 | 4 | 22 |

(a) Based on the results of the experiment, what can Ethan conclude about the three materials? [1]

(b) The diagram shows a heater that is used during winter in some countries to keep the air in a room warm.




Explain why Ethan chose a material that is the best conductor of heat for the heating rods. [1]

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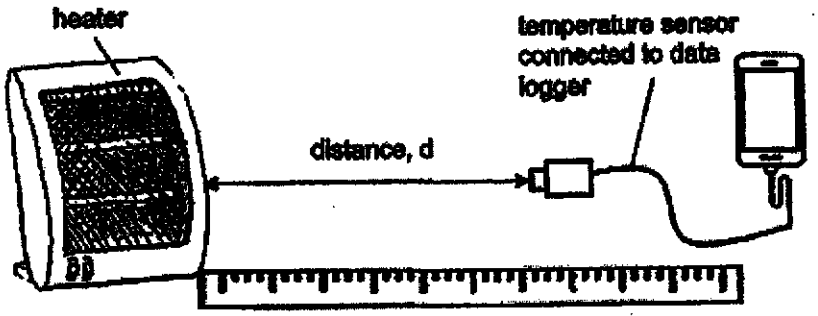
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Ethan then tested the effectiveness of the heater. He connected a temperature sensor to a data logger and measured the temperature of the surrounding air at different distances from the heater as shown.




He recorded his results in the table.

| Distance, d (cm) | 0 | 5 | 10 | 15 |
|---|---|---|---|---|
| Temperature of surrounding air (°C) | 70 | 65 | 55 | 40 |

(c) State the relationship between distance, d, and the temperature of the surrounding air. [1]

_____

_____

(d) Based on the results, should Ethan place the heater 5 cm away from where he sleeps? Give a reason for your answer. [1]

_____

_____

**End of Paper**

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SCHOOL : ANGLO – CHINESE SCHOOL (JUNIOR)
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : 2020 SA2

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**SECTION A**

| Q 1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 |
|---|---|---|---|---|---|---|---|---|---|
| 3 | 4 | 4 | 3 | 1 | 2 | 3 | 3 | 1 | 2 |
| Q 11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | Q20 |
| 3 | 2 | 3 | 1 | 2 | 1 | 2 | 4 | 2 | 1 |
| Q 21 | Q22 | Q23 | Q24 | Q25 | Q26 | Q27 | Q28 | | |
| 4 | 1 | 1 | 1 | 3 | 2 | 4 | 4 | | |

**SECTION B**

| | |
|---|---|
| Q29) | (a) Air inside the bottle took up space.<br>(b) She could poke a hole in the bottle.<br>(c) When the balloon is inflated, it pushes the air in the bottle and the air would escape from the hole allowing the air in the balloon to occupy the space previously occupied by air. |
| Q30) | (a) C,A,D,B<br>(b) The longer the pulling distance of a magnet, the greater its magnetic strength.<br>(c) The magnet would not attract the aluminium ball. Aluminium is not a magnetic material and would not be attracted by the magnet. |
| Q31) | (a) (i) womb (ii) It is a space for the foetus to grow<br>(i) Testis (ii) It produces sperms<br>(b) The male sex cell would fuse with the female sex cell. |
| Q32) | (a) Fruit X: It has a hook – like structure and will hook onto the fur of animals and fall off the animal for its seeds to be dispersed. |



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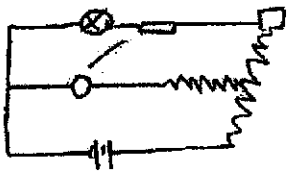
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| | |
|---|---|
| | Fruit Y: It would be eaten by animals and its small seeds would be passed out in the animal's droppings.<br>(b) It is to reduce overcrowding and competition for sunlight, water, nutrients and space. |
| Q33) | (a) $RR \rightarrow PP \rightarrow QQ$<br>(b) Cup Q was at room temperature. The surrounding water vapour was also at room temperature. The water vapour had no cooler surface to land on, lose heat and condense to form water droplets.<br>(c) Water in the kettle gained heat from the gas burner until the water reached 100°C. The water changed into gaseous state and escaped into contact with the surrounding air, lost hear and condensed into tiny water droplets which, was the white mist that was seen. |
| Q34) | (a) Food made by the leaves of the plant is stored in the fruits which caused the fruits to become bigger. Fruits produce by A was bigger than fruits produced by B as part of A's food carrying tubes was cut off, no food could be transported to the roots and all the food made by the leaves was stored in the fruits.<br>(b) No food could be transported to the roots as part of the food – carrying tubes was removed. Without food the roots could not absorb water so the plant wilted. |
| Q35) | (a) Y, Z, X<br>(b) To find out how the exposed surface area of water to the surroundings affects evaporation of water.<br>(c) The plastic roller spreads out the puddles of water on the tennis court so the surface area of water exposed to the surroundings would increase and the rate of evaporation is faster causing the tennis count to dry faster. |
| Q36) | (a) (i) C<br>(ii) D<br>(b) The warmer water vapour from her mouth<br>(c) The nose hair. |
| Q37) | (a) C,B,E,D,A<br>(b) His heart rate increased while he was running. His heart had to |



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| | |
|---|---|
| | pump faster to pump blood rich in oxygen and digested food to all parts of the body faster to release more energy and to remove more carbon dioxide from his body. |
| Q38) | (a) Copper and aluminium are conductors of electricity. When the door was opened, the copper strip came into contact with the aluminium strip forming a closed circuit so electric current could pass through the whole circuit.<br>(b) He can add more batteries to the circuit.<br>(c)<br> |
| Q39) | (a) 6<br>(b) By an opaque object<br>(c) A: It cannot detect people more than 1m high<br>Reason: light source and sensor at 1m high<br>A: It cannot detect more than 1 person passing through at a time<br>Reason: the graph will not show more than 1 person entering. |
| Q40) | (a) oxygen, glucóse<br>(b) it ensures that the amount of bubbles produced in 1 minute is only due to the amount of light and not due to the distance between the light source and the plant.<br>(c) 92, there is a maximum rate of photosynthesis. |
| Q41) | (a) B is the best conductor of heat followed by A and C.<br>(b) The heater can heat the room up the fastest and conduct heat the fastest.<br>(c) The greater distance d is, the lower the temperature of the surrounding air.<br>(d) No. It would be too hot. |



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